

09/785,577

REMARKS

Claims 1-21 all the claims pending in the application, stand rejected on prior art grounds.

Claims 1-21 are amended herein. Applicants respectfully traverse these rejections based on the following discussion.

I. The Prior Art Rejections

Claims 1-5, 8-12, and 15-19 stand rejected under 35 U.S.C. §102(e) as being anticipated over Salomidis, et al. (U.S. Publication No. 2003/0096576), hereinafter referred to as Salomidis.

Claims 6-7, 13-14, and 20-21 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Salomidis. Applicants respectfully traverse these rejections based on the following discussion.

Both Salomidis and the Applicants' invention describe means of improving device discovery performance for existing Bluetooth technology. However, in paragraphs [0017, 0019, and 0022] of Salomidis does not disclose a new method but simply describes features of the well-known Bluetooth specification. Conversely, the Applicants' invention proposes improvements for the existing Bluetooth technology.

Paragraphs [0045, 0046] in Salomidis propose alternate switching of states between inquiry and inquiry scan states of Bluetooth specification at random time instants. This is different from the windowed approach described in the Applicants' invention where time is divided into intervals and an inquiry scan is conducted once every interval starting at a random instant (within the interval).

09/785,577

Moreover, regarding claims 1-21, Salonidis fails to disclose, teach or suggest the features of Applicants' amended independent claim 1, including, "[a] method for reducing device discovery delays in frequency hopping based ad-hoc networks, said method comprising: interrupting an activity being executed by a device to scan at least once in a first pre-determined time period, for a second pre-determined time period, for inquiry messages from other devices; returning to continue said activity on expiry of said first pre-determined time period when devices to scan are found; and processing an inquiry message in accordance with normal procedures applicable to a particular frequency hopping based ad-hoc network when said devices to scan are not found."

Similarly, Salonidis also fails to disclose, teach or suggest the features of independent claim 8, including, "[a] device for use in frequency hopping based ad-hoc networks including: a processor adapted to interrupting an activity being executed by a device to scan at least once in a first pre-determined time period, for a second pre-determined time period, for inquiry messages from other devices, wherein said processor is adapted to returning to continue said activity on expiry of said first pre-determined time period when devices to scan are found, and wherein said processor is adapted to processing an inquiry message in accordance with normal procedures applicable to a particular frequency hopping based ad-hoc network when said devices to scan are not found."

Likewise, Salonidis also fails to disclose, teach or suggest the features of independent claim 15, including, "[a] computer program product incorporating a computer readable medium having a computer program recorded therein for use in devices for frequency hopping based ad-

09/785,577

hoc networks, said computer program product including: computer program code adapted to interrupting an activity being executed by a device to scan at least once in a first pre-determined time period, for a second pre-determined time period, for inquiry messages from other devices; computer program code adapted to returning to continue said activity on expiry of said first pre-determined time period when devices to scan are found; and computer program code adapted to processing an inquiry message in accordance with normal procedures applicable to a particular frequency hopping based ad-hoc network when said devices to scan are not found."

Since the Salomidis method is focused on connecting two or more devices where in a first state, the device seeks to establish a connection with another device, and in a second state, the device renders itself available for connection with another device and "alternating a present state of each device between the first state and the second state in accordance with a predefined probability distribution until either a predetermined timeout period has expired or a connection between the devices has been established," this conventional method may likely provide an inquiring device, which is unavailable for discovery for a long period of time.

Therefore, Applicant's invention is configured so that "the proposed algorithm increases the rate of useful responses for the same scenario by up to 60%. For a given number of Max-responses, the inquiry delays and the number of timeouts are seen to be reduced by 50%. Thus the proposed algorithm improves the device discovery delays without adding any complexity. The inputs to the frequency hopping kernel, for all types of hopping sequences remain unchanged. The algorithm thus will reduce the pre-connection overheads for Bluetooth-based systems and make more bandwidth available for useful communication." (See Page 18, lines 1-7

09/785,577

of Applicants' specification). Based on the above, the Applicant traverses the assertion that Salomidis teaches Applicant's invention of independent claims 1, 8 and 15, and related dependent claims 2-7, 9-14 and 16-21.

In view of the foregoing, the Applicants respectfully submit that the collective cited prior art do not teach or suggest the features defined by amended independent claims 1, 8, and 15 and as such, claims 1, 8, and 15 are patentable over Salomidis. Further, dependent claims 2-7, 9-14 and 16-21 are similarly patentable over Salomidis, not only by virtue of their dependency from patentable independent claims, respectively, but also by virtue of the additional features of the invention they define. Moreover, the Applicants note that all claims are properly supported in the specification and accompanying drawings. In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw the rejections.

II. Formal Matters and Conclusion

In view of the foregoing, Applicants submit that claims 1-21, all the claims presently pending in the application, are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary. Please charge any deficiencies and credit any overpayments to Attorney -s Deposit Account Number 09-0441.

09/785,577

Respectfully submitted,

Dated: August 18, 2005Mohammad S. Rahman, Esq.
Registration No. 43,029

McGinn & Gibb, PLLC
2568-A Riva Road, Suite 304
Annapolis, MD 21401
Voice: (301) 261-8625
Fax: (301) 261-8825
Customer Number: 29154